

**AMENDMENTS TO THE CLAIMS:**

Please replace the claims with the claims provided in the listing below wherein status, amendments, additions and cancellations are indicated.

1. (Currently Amended) Method for ~~the~~ comminution ~~disintegration~~ and tribochemical activation ~~in particular~~ of inorganic materials, comprising:

moving objects transonically to thereby create impact pressure fronts that occur as compression shocks, said impact pressure fronts having a pulse duration of less than 10 $\mu$ s and a repetition rate greater than 8kHz;

comminuting said inorganic materials to a particle size of less than 1  $\mu$ m by exposing said inorganic materials to said pressure fronts.

~~characterized in that the starting materials are comminuted (disintegrated) to a particle size of less than 1  $\mu$ m by the effect of impact pressure fronts that occur as compression shocks on profiles are moved transonically, with a pulse duration of 10  $\mu$ s and a repetition rate of greater than 8 kHz.~~

2. (Currently Amended) Method in accordance with claim 1, wherein ~~characterized in that during the disintegration of said inorganic materials~~ have with a crystalline structure, [[a]] and said comminuting produces a conglomerate of activated mixed crystals ~~is produced~~ that has an increased capacity for crystal formation when water is added.

3.(Currently Amended) Method in accordance with claim 1, wherein an  
~~characterized in that~~ the effective duration of said impact pressure fronts ~~(4) last lasts~~  
until ~~the~~ a crystal lattice structure of said inorganic materials particles ~~(30)~~ has been  
destroyed.

4.(Currently Amended) Method in accordance with claim 3[[1]], wherein  
~~characterized in that~~ said impact pressure fronts are created by the rotation of said  
objects at a transonic speed range, wherein said objects are formed in an aerodynamic  
shape occur due to rotating shaped bodies (1) that have aerodynamically formed  
profiles and that are accelerated to the transonic speed range.

5. (Currently Amended) Method in accordance with claim 3[[1]],  
~~characterized in that~~ said particles are subjected to impact pressure fronts ~~(4) of~~  
wherein said objects comprise first objects and second objects, said first objects and  
second objects rotating in opposite directions, shaped bodies (1) that are rotating in  
opposition to one another.

6.(Currently Amended) Method in accordance with claim 1, wherein  
~~characterized in that~~ the comminution ~~disintegration~~ takes place under a protective  
gas.

7-15. (Cancelled).

16. (Withdrawn-Currently Amended) Apparatus for disintegration and tribochemical activation of materials, comprising:

counter-rotating disks; and

objects ~~substance bodies~~ on said counter-rotating disks, said objects ~~substance~~ ~~bodies~~ being symmetrical, aerodynamic, rounded on a ~~feed~~ front end, and having off flow surfaces which are straight and at an angle to one another.

17. (Withdrawn-Currently Amended) The apparatus according to claim 16, wherein said objects ~~are inorganic~~. ~~substance bodies are inorganic shaped bodies.~~

18. (Withdrawn-Currently Amended) The apparatus according to claim 16, wherein said objects ~~substance bodies~~ have a drag coefficient of 0.1.

19. (New) Method for comminution of materials, comprising:  
moving objects transonically to thereby create impact pressure fronts; and  
comminuting said materials by exposing said materials to said pressure fronts.

20. (New) Method according to claim 19, wherein said impact pressure fronts have a pulse duration of less than  $10\mu\text{s}$  and a repetition rate greater than  $8\text{kHz}$ .

21. (New) Method according to claim 19, wherein said materials are inorganic.

22. (New) Method according to claim 19, wherein said material are comminuted to a particle size of less than  $1\mu\text{m}$ .

23. (New) Method according to claim 19, where said moving of said objects comprises rotating said objects around a common axis of rotation.

24. (New) Method according to claim 23, wherein said objects comprise first objects and second objects, wherein said first objects and said second objects are rotated in different directions.

25. (New) Method according to claim 19, wherein said objects are formed in an aerodynamic shape.

26. (New) Method according to claim 19, wherein said objects are formed with one end having a rounded shape.

27. (New) Method according to claim 19, wherein said objects are formed with one end having a rounded shape and another end having outer surfaces which converge towards one another as said outer surfaces approach a tip end of said another end.

28. (New) Apparatus according to claim 16, wherein said apparatus is configured to rotate said objects at transonic speeds.